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New network design/installation $extstyle{ ilde{\mbox{-}}}$ You want to network computers or other resources in your organization.

Adding to an existing network - You have an existing network and plan to attach the new network to the existing one.

Please indicate whether your organization has any networking standards/directions. Attach supporting documents as needed:
How many users must this network support:
What is the expected time frame for this project:
If you are part of a larger organization, please indicate their core business:
What are your present and future objectives for this project? Attach supporting documents as needed.

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Components Listing

The following is a list of GE Capital IT Solutions suggested operating systems, protocols, applications, intenetworking devices and other technologies. Based on individual projects, all necessary components may be selected from the following lists. In the event of not finding your desired IS solution in the following sections, please contact a systems engineer.

Operating Systems/Environments

Please indicate all desired operating systems/environments (file servers and workstations) utilized or that you plan to utilize at your location (use numbers):

Work	stations			Servers	
Operating System	Present	Planned	Operating System	Present	Planne
Windows 3.x			NT Server 3.51		
Windows 95			NT Server 4.0		
Windows 98			Windows 2000		
NT Workstation			NetWare 3.x		
3.51					
NT Workstation 4.0			NetWare 4.x		
Windows 2000			NetWare 5.x		
OS/2			HP MPE		
Mac OS 7.x			Banvan VINES		
Mac OS 8.x			MVS		
Mac OS 9.x			OS/2		
Mac OS 10.x			Mac OS 7.x		
Solaris 2.x			Mac OS 8.x		
Solaris 7			Mac OS 9.x		
Solaris 8			Mac OS 10.x	İ	
			VMSNAX		
			Lantastic		
			Solaris 2.x		
			Solaris 7		
			Solaris 8		
			SCO UNIX		
			UNIXware		
			LAN Manager		

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Printers

Please identify all the printers utilized or that you plan to utilize at your location:

Model	Network Attached	Present Quantity	Planned Quantity
	Model	Model Network Attached	

Protocols & Transmission Technologies

Please identify all protocols and transmission technologies utilized or that you plan to utilize at your location:

Protocol/Technology	Presently Used	Planning to Use
TCP/IP		
IPX/SPX		
AppleTalk		
SNA		
NetBEUI		
DLC		
Other:		
Other:		
Other:		

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Installed LANs

Please identify all installed LANs utilized or that you plan to utilize at your location:

Protocol/Technology	Presently Used	Planning to Use
10Mb Shared Ethernet		
10Mb Switched Ethernet		
1 00Mb Shared Ethernet		
1 00Mb Switched Ethernet		
4/16 Token Ring		
4/16 Switched Token Ring		
FDDI		
CDDI		
Other:		
Other:		

How many	Local Area	Network segments	are installed at you	r location:	

Network Services

Please indicate if the following network services are currently provided or if they are planned to be implemented at your location:

Network Service	# of Servers Providing Service	Presently Used	Planning to Use
DNS	· · · · · · · · · · · · · · · · · · ·		
WINS			
DHCP			
FAX			
Other:			
Other:			

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Mainframe/Host Connectivity

Please specify the mainframe systems currently accessed by your agency (if any):

System Name	Reason for Access	System Location

Utilized Internetworking Devices

Please indicate the type of internetworking devices utilized or that you plan to utilize at your site:

Device	# of Devices	Presently Used	Planning to Use
Hubs			
Ethernet Switches			
Routers			
Token Ring MAU			
Token Ring Switch			
Remote Access Device			
VPN Device			
Firewall			
Bridges			
IP/IPX Gateway			
Other:			
Other:			
Other:			

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Topologies

Please indicate the different network topologies utilized or that you plan to utilize at your site:

Topology	# of Segments	Presently Used	Planning to Use
Star			
Bus			
Hybrid			
Ring			
Other:			
Other:			

Data Communications Technologies

Please indicate the data communication technologies utilized or that you plan to utilize at your site:

Data Com. Technology	Number of Circuits/ Connections	Presently Used	Planning to Use
T1			
Frame-Relay			
DSO			
DS3			
ISDN			
ATM			
56K AND			
SONET			
X.25			
SMDS			
DSL			
Other:			
Other:			
Other:			

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Network Management Applications

Please indicate all network management applications utilized or that you plan to utilize at your location:

Application	Presently Used	Planning to Use
HP OpenView		
I CiscoWorks 2000		
Cisco Works Blue		
Cisco Works 5.0		
NetSpy		
NetView/6000		
NetView		
Nortel Optivity		
3com Transcend		
Novell Managewise		
Other:		
Other:		

Network Management Protocols

Please indicate the network management protocol(s) utilized or that you plan to utilize at your location:

Protocol	Presently Used	Planning to Use
SNMP – MIB I		
SNMP – MIB II		
RMON		

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LAN Cabling Infrastructure

Please indicate the LAN cabling infrastructure(s) utilized or that you plan to utilize at your location:

Cabling Types	Presently Used	Planning to Use
Cat 3 Twisted Pair		
Cat 5 Twisted Pair		
Cat 5e Twisted Pair		
IBM Type 1		
IBM Type 4		
Single Mode Fiber		
Multi Mode Fiber		
Other:		
Other:		

Wiring Closets

Please describe the existing wiring closet(s) at your location. Common port types are 10 Mb Ethernet, 100Mb Ethernet, FDDI, Token Ring, and Gigabit Ethernet. Please list the number of each port type in each of the wiring closets.

	Port Type and Count			
Main Distribution Facility				
Intermediate Distribution Facility				
Intermediate Distribution Facility				
Intermediate Distribution Facility				
Intermediate Distribution Facility				

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Applications

Please indicate any and all applications that are being utilized or that you plan to utilize on your LAN:

Application Type	Presently Used	Planning to Use
CAD/CAM		
CASE		
Client/Sever Applications		
Database (i.e. Oracle)		
Office Productivity (Word		
Processing, Spreadsheet,		
Presentation Graphics)		
Digital Video		
Desktop Publishing		
Application Development		
Multimedia		
Accounting/Payroll		
Groupware		
Other:		
Other:		
Other:		

E-Mail Applications

Please list any E-mail applications that you utilized or that you plan to utilize on your LAN:

Email Application	Presently Used	Planning to Use
Microsoft Exchange		
Novell GroupWise		
Unix-based Sendmail		
Lotus Notes:		
Other:		
Other:		

P	ease	ind	icate	the	desired	platf	orm	for i	the	E-mai	system:	

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Database Engines

Please list any database engines that are utilized or that will be deployed on your LAN:

Database	Presently Used	Planning to Use
Oracle on Unix		
Oracle on NT		
Svbase		
Informix		
DB/2		
MS SOL Server		
Other:		
Other:		
Other:		

Database Servers

Please indicate the current and planned purpose(s) of utilizing a database server(s):

Purpose	Current Use	Planned Use
Application Development		
Database Development		
Client/Server front-end		
development		
Other:		
Other:		
Other:		

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D4. Network Upgrades

In responding to the RFP, the supplier must provide a narrative response describing network upgrade services. This description should discuss, at a minimum:

- . Server upgrade
- Input/output device upgrade
- Network operating system upgrade
- **EXApplication software upgrade**

GECITS' network upgrade services will benefit the State by providing timely, cost-effective upgrades.

In this section, GECITS provides a narrative response that describes our network upgrade services. To describe our network upgrade services, and address the requirements specified in RFP Section VI, Requirement D4 above, we have organized our response according to the following headings:

- □ Introduction
- Server Upgrades
- □ Input/Output Device Upgrades
- □ Network Operating System Upgrades
- □ Application Software Upgrades
- □ LAN/MAN/WAN Upgrades

By providing LAN/MAN/WAN upgrades as an additional offering, GECITS' solution **exceeds the** minimum/mandatory RFP requirements.

Introduction

GECITS has extensive experience and a fully knowledgeable staffready to analyze, design, and implement various types of network upgrades. The dynamic nature of the computer industry requires GECITS to maintain a rigorous training schedule for our engineers. This helps to ensure that our engineers maintain a level of expertise and certification that will provide our customers with complete satisfaction.

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GECITS has participated in the upgrade process of small to medium networks, as well as enterprise wide area networks. Our engineers have the experience to work at the workstation systems level, up to and including enterprise servers. Because of our experience with upgrades, we are able to minimize risk so that customers receive a qualified design and implementation of all upgraded components.

For all types of network upgrades, GECITS will always attempt to limit network downtime so user impact is kept to a minimum. GECITS will also ensure that careful planning takes place in an effort to maximize the investment in the upgrade process, while still maintaining the needed performance for existing and future applications and end user growth.

Server Upgrades

After careful analysis of the network planning questionnaire, GECITS engineers will perform a number of specific tasks. We will work with the customer to define the server's performance parameters, and perform component and capacity planning in an effort to determine what will be required to meet the performance parameters. We will then work with the customer to develop a plan that will identify the resources and imeframes required to implement the server upgrade.

We will review the plan with the customer to ensure that the plan will provide an upgrade that meets the customer's requirements/needs and timeframes.

Depending on the results of the component and capacity planning effort, and the platform of the existing server, we will either upgrade the server with the most current components available (RAM, hard drive, CPU, etc.), or we will replace the-server with the most technologically advanced system available. To confirm the decision, we will provide information to the customer in the form of white papers, Web site addresses, and various applications for their analysis.

In some instances, an upgrade may include a cut-over to a new platform. In such cases, we will work with the customer to ensure that we address all data integrity and data migration issues to the customer's satisfaction.

GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place. The statement



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of work will communicate the guidelines and the time**frame** of the project to. provide the customer with advanced notice of any network downtime for the upgrade process.

Once the upgrade is complete, GECITS will provide the customer with a document that identifies the product name, version, license number, and any other appropriate information. We will then familiarize the customer with the basic operation of the newly installed products, and describe any warranty and/or service requirements.

Input/Output Device Upgrades

Based on the results of the network planning questionnaire, GECITS will work with the customer to develop a plan that will identify the resources and timeframes necessary to upgrade the input/output devices to the most current $v \in r \circ i \circ n$.

These types of devices could include, but are not limited to, disk arrays, SCSI adapters, fiber channel adapters, and network controllers. Once a decision has been made, all avenues will be addressed to allow for adaptation into the existing network. The upgrade of any input/output device will be carefully researched to determine compatibility with existing network design and infrastructure.

We will review the plan with the customer to ensure that the plan will provide an upgrade that meets the customer's requirements/needs and time frames.

GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place. The statement of work will communicate the guidelines and the time **frame** of the project to provide the customer with advanced notice of any network downtime for the upgrade process.

Once the upgrade is complete, GECITS will provide the customer with a document that identifies the product name, version, license number, and any other appropriate information. We will then familiarize the customer with the basic operation of the newly installed products, and describe any warranty and/or service requirements.

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Network Operating System Upgrades

Based on the results of the network planning questionnaire, GECITS will work with the customer to develop a plan that willidentify the resources and timeframes necessary to upgrade the current network operating system to the most current version. In addition, according to the new requirements, GECITS will configure and modify the parameters of the newly installed operating system.

We will review the plan with the customer to ensure that the plan will provide an upgrade that meets the customer's requirements/needs and timeframes.

GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place. The statement of work will communicate the guidelines and the timeframe of the project to provide the customer with advanced notice of any network downtime for the upgrade process.

Once the upgrade is complete, GECITS will provide the customer with a document that identifies the product name, version, license number, and any other appropriate information. We will then familiarize the customer with the basic operation of the newly installed products, and describe any warranty and/or service requirements.

Application Software Upgrades

Based on the results of the network planning questionnaire, GECITS will work with the customer to develop a plan that will identify the resources and timeframes necessary to upgrade applicationsoftware to the most current version. In addition, according to the new requirements, GECITS will configure and modify the parameters of the newly installed application software.

Consideration will be taken in regards to integration of the applications with focus on the operating system, current patches for the operating system, and the correct revision of the application. This will eliminate the possibility of applications software and operating software conflicts.

We will review the plan with the customer to ensure that the plan will provide an upgrade that meets the customer's requirements/needs and timeframes.



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GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place.

Once the application is updated, we will process the need to move or replace data needed by the application. Once the upgrade is complete, GECITS will provide the customer with a document that identifies all the application upgrades and configurations.

LAN/MAN/WAN Upgrades

Due to the dynamic nature of today's network environments, there is an ongoing need to upgrade existing Local Area Networks and Wide Area Networks. By providing LAN/MAN/WAN upgrades, GECITS' proposed solution **exceeds the** minimum/mandatory requirements.

LANS

For LANs, through the use of the network planning questionnaire, GECITS engineers will review a customer's existing network configuration to determine the number and type of products required. We will review this information with the customer, and then develop an upgrade plan that identifies the resources and timeframes required to implement the plan. Our plan will consider the existing and future needs for accessing the network, end-users, performance, quality of service, security, and existing and new applications. Our plan will ensure that we deploy the correct protocols for future growth, and that the legacy network structure will not be compromised.

We will review the plan with the customer to ensure that the plan will provide an upgrade-that meets the customer's requirements/needs and timeframes.

GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place. The statement of work will communicate the guidelines and the time frame of the project to provide the customer with advanced notice of any network downtime for the upgrade process.

Once the upgrade is complete, GECITS will provide the customer with a document that identifies the product name, version, license number, and any other appropriate information. We will then familiarize the customer with the

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basic operation of the newly installed products, and describe any warranty and/or service requirements.

MANS and WANS

For WANs, the process is basically the same as described above. Through the use of the network planning questionnaire, and the use of tools such as system models, GECITS engineers will perform component and capacity planning to determine the number and type of products required. We will review this information with the customer, and then develop an upgrade plan that identifies the site preparation requirements, as well as resources and timeframes required to implement the plan. Our plan will consider the existing and future needs for accessing the network, end users, performance, quality of service, security, and existing and new applications. Our plan will ensure that we deploy the correct protocols for future growth, and that the legacy network structure will not be compromised.

As these upgrades can affect a large number of users, we will work with the customer to determine the best time to implement the upgrade.

We will review the plan with the customer to ensure that the plan will provide an upgrade that meets the customer's requirements/needs and timeframes.

GECITS will provide the customer with a statement of work, which will allow the customer and GECITS the ability to implement, test, and document the upgrade and allow for any changes that may need to take place. The statement of work will communicate the guidelines and the time frame of the project to provide the customer with advanced notice of any network downtime for the upgrade process.

Once the upgrade is complete, GECITS will provide the customer with a document that identifies the product name, version, license number, and any other appropriate information. We will then familiarize the customer with the basic operation of the newly installed products, and describe any warranty and/or service requirements.

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E4. Strategic Design

In responding to the RFP, the supplier must provide a narrative response describing Strategic Design services. These services must include, at a minimum:

- System Consultation
- Systems Planning (short and long-term)
- **EX**Systems Analysis

GECITS' strategic design services will benefit the State by providing superior IT solutions that address specific customer business requirements.

In this section, GECITS provides a narrative response that describes our strategic design services. To describe our strategic design services, and address the requirements specified in RFP Section VI, Requirement E4 above, we have organized our response according to the following headings:

- Introduction
- □ System Consultation
- □ System Planning (short and long-term)
- □ Systems Analysis

Introduction

As a leading provider of fully integrated IT solutions, GECITS addresses a full range of customer needs including system consultation, systems planning, and systems analysis. In order to provide such strategic design services, we have assembled an experienced staff with advanced technology certifications, and have entered into strategic business alliances with industry-leading manufacturers.

GECITS' alliances with industry-leading manufacturers keep us at the forefront of technology trends. Our alliance with Cisco Systems, where GECITS has established and maintains a Gold Partner Certification, allows us to purchase directly from Cisco and maintain our investment in Cisco-certified engineers to support the entire Cisco line of products.

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Our Sun Microsystems alliance has resulted in the development of astaff of fully trained and certified Workgroup, Enterprise, Cluster, and E 10000 technical engineers and account managers. We also have staff with specialty certifications in Security, Internetworking, and E-Commerce.

GECITS also maintains certifications with Microsoft, Compaq, Hewlett-Packard, IBM, and other manufacturers. Each alliance or certification is an additional measure of the technical strength and experience of our staff

Our experience, alliances, and certifications all allow us to provide superior strategic design services, including the full range of system consultation, systems planning, and systems analysis, each of which we discuss in the following subsections.

Systems Consultation

GECITS is a leading provider of information systems consulting, specializing in the strategic application and integration of distributed computing platforms and open system technologies. We will provide systems consultation through the application of proven structured methodologies by highly qualified GECITS engineers and consultants. Through this offering, the State can obtain GECITS services for the full range of consultation services including the following types of projects:

- Network Integration GECITS assists customers with the identification of network capabilities that are necessary to support customer systems and business operations
- Capacity Planning GECITS studies network statistics, growth projections, and traffic flow patterns to assist customers in developing system and network capacity plans
- Requirements Determination GECITS leads customers through a requirements determination process to identify and document system and communication related business requirements
- Performance Assessment GECITS provides an independent evaluation of the performance of customer networks and system operations
- Security Audit GECITS evaluates customer compliance with security, confidentiality, and access restriction policies

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- ☐ Feasibility Study GECITS conducts a feasibility study for the customer, evaluating alternatives and recommending the most cost-effective solution
- Justification for Budget Change Proposal—GECITS provides technical information to support the customer's budget change proposal
- Emerging Technology System Direction Study- GECITS has a comprehensive knowledge of systems and communication technology and can guide the customer to make sound decisions regarding the implementation of advanced and innovative information system technology
- Business Process Reengineering GECITS analyzes a customer's existing processes and inspires the creation of new automated processes that enable dramatic gains in efficiency and productivity
- Business Continuity Planning GECITS develops system disaster backup and customer contingency operation procedures

GECITS systems consultation services will assist the State in selecting enabling technology that facilitates achievement of desired goals and objectives.

Systems Planning (both long and short term)

Our investment in experienced consultants and engineers provides us with the needed intellectual capital to create proactive solutions for our customers. GECITS' engineers and consultants have the added advantage of "hands on" experience that provides us the opportunity to approach our customers with real business solutions that have been successfully implemented within other environments. This helps assure our customers that our proposed plans will meet today's standards, while providing opportunities for growth.

GECITS supports both long and short term systems planning through the following steps:

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- □ Situational Assessment Understanding the status of current systems provides a baseline for future plans
- Mission/Vision/Goals Clarifying the systems implications of the customer's mission statement, vision, and organizational goals establishes a direction for the planning effort
- Recommendations and Initiatives Identifies projects that address specific customer business requirements
- □ Plan of Action Provides the customer with a prioritized implementation plan and schedule

GECITS utilizes a project management style of approach to systems planning. The GE GEnius Methodology, which we discussed in the section entitled, "Network Design," offers an approach to providing consistency in planning, as well as implementing and documenting each project. This approach, developed by GECITS professional staff, ensures quality standards and consistency for the planning, organizing, directing, and shared controlling of project resources to complete specific goals and objectives. With these steps in place, the ability to explore and work through a systems planning session will provide the customer with a realistic timeline for solution implementation.

Systems Analysis

Systems analysis is supported and described by the Systems Analysis and Discovery Phase of the GEGEnius Methodology Project Management Model. In this phase, detailed system requirements are made and analyzed. Our systems analysis services include the following activities:

- □ Network design and performance tuning
- □ Technical evaluation of hardware and software
- □ Web site design, development, and maintenance
- ☐ General and detail systems design
- CASE tools supporting data modeling and object oriented analysis
- Data and process flow documentation
- □ Integration of components, modules, and packages
- Customizing commercial off-the-shelf applications
- Design, development, and implementation of advanced technology solutions



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GECITS engineers and consultants will perform specific systemsanalysis activities as necessary to meet customer business needs and project requirements.

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F4. Network Management/Administration

In responding to the RFP, the supplier must provide a narrative response describing Network Management services. These services must include, at a minimum:

- **Adding** users
- zz Deleting users
- Control space
- Make recommendations for system enhancements and improvements
- **First contact for problems**

GECITS' network management and administration services will benefit the State by allowing network administrators to manage user access to network resources and ensure end user productivity.

In this section, GECITS provides a narrative response that describes our network management services. To describe our network management services, and address the requirements specified in RFP Section VI, Requirement F4 above, we have organized our response according to the following headings:

- Introduction
- Adding Users
- Deleting Users
- Control Space
- Making Recommendations for System Enhancements and Improvements
- □ First Contact for Problems
- Continuous Monitoring

By providing continuous monitoring as an additional offering, GECITS' solution **exceeds the** minimum/mandatory RFP requirements.

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Introduction

GECITS' network management services focus on providing our customers with the ability to manage their network infrastructure through either an **on**-site arrangement or remotely.

GECITS provides on-site network management and administration services through a network administrator who is authorized to add and delete users, and control access to shared network resources such as file servers, printers, and software applications. Other on-site functions may include checking network status, restoring configurations, logon script customization, changing menus, and backing up files.

GECITS provides remote network management and administration through the GECITS Intellicenter. Located in Erlanger, Kentucky, the 50,000 square foot GECITS Intellicenter houses our Customer Call Center for receiving and tracking customer service requests through resolution, as well as our Remote Management Services and the Help Desk. For a full description of the GECITS Intellicenter, please refer to the section entitled, "Customer Service."

GECITS' technical **staff** has expertise in network management of mostLANs, WANs, and non-networked computing environments. In delivering network management and administration services, we focus on providing full support to end users, as described in the following sections.

Adding Users

GECITS adds users only when directed by customer contacts who have authority and responsibility for user account maintenance. We add the user and provide access to the network with account permissions and restrictions as required by the customer's specifications, This includes establishing an initial password to provide the user with access to the applications and data needed for the performance of the user's assigned duties. GECITS also checks to ensure that the addition of the user is accomplished in compliance with established security policies for the internetworking environment.

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Deleting Users

Upon request by the authorized contact, GECITS deletes user accounts. This can be performed either locally or remotely. The user account will be immediately disabled after proper authorization is received. The user's account will be held for a period of time in a non-usable, but available state. If

the data in the accounts needs to be reviewed or utilized by management, the data associated with the user account will be made readily available for use. Once the information is deemed no longer necessary, the user account can then be removed completely **from** the internetworking environment.

Control Space

GECITS network management and administration services include assisting storage space allocated to users. Through the use of software in the operating environment, we can control the space allowed for each user account. When new user accounts are created, we follow the information technology department's specifications for space allocations to set the amount of disk usage that is appropriate for the new user.

We also offer the capability for monitoring disk usage to assist customers in proactively planning for the installation of additional disk space when needed. This capability also enables us to recommend the archiving of old or infrequently needed files to conserve space. This service can also be used to identify users who are over utilizing space allocations.

Making Recommendations for System Enhancements and Improvements

GECITS engineers will provide consulting services to address a number of IT related issues, including enhancing and improving system performance. This entails monitoring LAN/MAN/WANtraffic, and understanding our client's application environment, including the **frequency** and direction of information flows. This service offering depends on the level of network management and performance monitoring desired by the customer.

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Depending on the options requested by the customer, GECITS can offer user support down to the local server level. This allows us to analyze all aspects of the customer's network utilization, provide network management reports, and make recommendations for improvement. The areas where reports and recommendations can be offered include:

- □ Resource utilization statistics and capacity planning information
- Disk storage trends
- Network traffic analysis
- Moves, adds, and changes to the network
- □ Failures and interruptions by location and equipment type
- Security violations
- Application usage levels
- Overall end user analysis
- Power consumption (if remote monitoring of equipment is supported)
- □ Preventive maintenance schedules

We can have weekly status calls with the customer, and use these calls as appropriate to recommend upgrading software, adding hardware, reconfiguring components, or replacing equipment when needed to increase network capacity. Our recommendations may also include such things as traffic shaping of data to best utilize the existing bandwidth, developing virtual LANs, distributing or centralizing client services, and employing a variety of Quality of Service (QOS) options. GECITS assists clients with recommendations that address user requirements within budget limitations.

First Contact for Problems

GECITS' Customer Care Center (CCC), which is within the GECITS Intellicenter, is the first point of contact for end users to report problems and receive technical and customer service support. Our Help Desk staff within the CCC receives customer calls 24 hours a day, seven days a week. The Help Desk opens a trouble ticket and tracks each incident through completion.